

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) In a bidirectional ring network, in which nodes are mutually connected by network segments, a method of fault protection, comprising:
constructing a general mask indicating which of the segments are reachable ~~can be reached~~ in the event of a fault in the network by assigning a respective general mask bit to each segment, indicating whether the segment ~~can be reached~~ is reachable following occurrence of the fault;
for a given data flow to be conveyed through the network from a source node to a destination node, constructing a specific mask indicating the segments on a desired path of the flow by assigning a respective specific mask bit to each of the segments, indicating whether the flow was to be conveyed over the segment had occurrence of the segment been operational before the fault ~~not occurred~~; and
superimposing the general and specific masks in order to determine a disposition of the flow.

2-3. Cancelled.

4. (Original) A method according to claim 1, wherein superimposing the masks comprises combining the masks by means of a Boolean operation.

5. (Original) A method according to claim 1, wherein superimposing the masks comprises determining whether to convey the data flow over the desired path, to steer the data flow over an alternative path, or to stop conveying the data flow.

6. (Original) A method according to claim 5, wherein superimposing the masks comprises generating a combined mask, and determining that the data flow should be conveyed over the desired path when the combined mask is null.

7. (Original) A method according to claim 5, wherein superimposing the masks comprises generating a combined mask, and determining that the data flow should be steered over the alternative path when the combined mask corresponds to the general mask.

8. (Original) A method according to claim 5, wherein superimposing the masks comprises generating a combined mask, and determining that the data flow should not be conveyed when the combined mask is neither null, nor does it correspond to the general mask.

9. (Currently amended) A communication device for use in a bidirectional ring network, in which nodes are mutually connected by network segments, the device comprising a network processor, which is adapted to construct a general mask indicating which of the segments ~~can be reached~~ are reachable in the event of a fault in the network, the general mask comprising a respective general mask bit for each segment, indicating

whether the segment ~~can be reached~~ is reachable following occurrence of the fault, and to construct a specific mask for a given data flow to be conveyed through the network from a source node to a destination node, the specific mask indicating the segments on a desired path of the flow by comprising a respective specific mask bit for each segment, indicating whether the flow was to be conveyed over the segment had occurrence of the segment been operational before the fault ~~not occurred~~, and to superimpose the general and specific masks in order to determine a disposition of the flow.

10-11. Cancelled.

12. (Original) A device according to claim 9, wherein the processor is adapted to superimpose the masks by performing a Boolean operation on the masks.

13. (Original) A device according to claim 9, wherein the processor is adapted to determine whether to convey the data flow over the desired path, to steer the data flow over an alternative path, or to stop conveying the data flow based on the superimposed masks.

14. (Original) A device according to claim 13, wherein the processor is adapted to superimpose the masks so as to generate a combined mask, and to determine that the data flow should be conveyed over the desired path when the combined mask is null.

15. (Original) A device according to claim 13, wherein the processor is adapted to superimpose the masks so as to generate a combined mask, and to determine that the data flow should be steered over the alternative path when the combined mask corresponds to the general mask.

16. (Original) A device according to claim 13, wherein the processor is adapted to superimpose the masks so as to generate a combined mask, and to determine that the data flow should not be conveyed when the combined mask is neither null, nor does it correspond to the general mask.